Frances Shure
1841 S. Sherman St.
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Commissioner Jane Henney
Docket # 00P-1211 / CP1
FDA Dockets Management Branch, (HFA-305)
5630 Fisher's Lane, Room 1061
Rockville, MD 20852

Dear Commissioner Henney,

As a small group of that I am associated with publish this years roots newsletter. I am sending you this latest issue of the Monkey Wrench which tackles the subject of genetically engineered foods + crops. We hand out issues in front of grocery stores here in Denver, and we find that ±80% of the public has now heard that they are unknowingly buying GE foods + are very interested in learning more — especially mothers with children are interested.

As you know there is no testing of safety for human health or the environment with GE crops. I urge you to reconsider the FDA's unwise decision to allow GE foods on the market without testing for safety. Please respond + let me know the FDA's plans regarding this crucial issue.

Yours Truly,
Frances Shure
303-778-7511

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PS -

You may be interested to know that WILD OATS - a natural foods market has published a magazine on GE foods which is even more comprehensive than our newsletter. They put it on display for all customers to take. They are of the same opinion as we: GE foods must be removed from production unless proven safe to the environment + human health, and if proven safe, then labeled for consumers so they can make informed purchasing decisions.

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The Monkey Wrench

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Maybe You Didn't Know It, But You've Been Eating Strange Things

"Biotechnology provides the capability to revolutionize nutrition and food in a way that will make the industrial revolution pale by comparison."

–Austen Cargill, CEO of Cargill Seeds (now Monsanto, which is now part of Pharmacia).

A Second Genesis

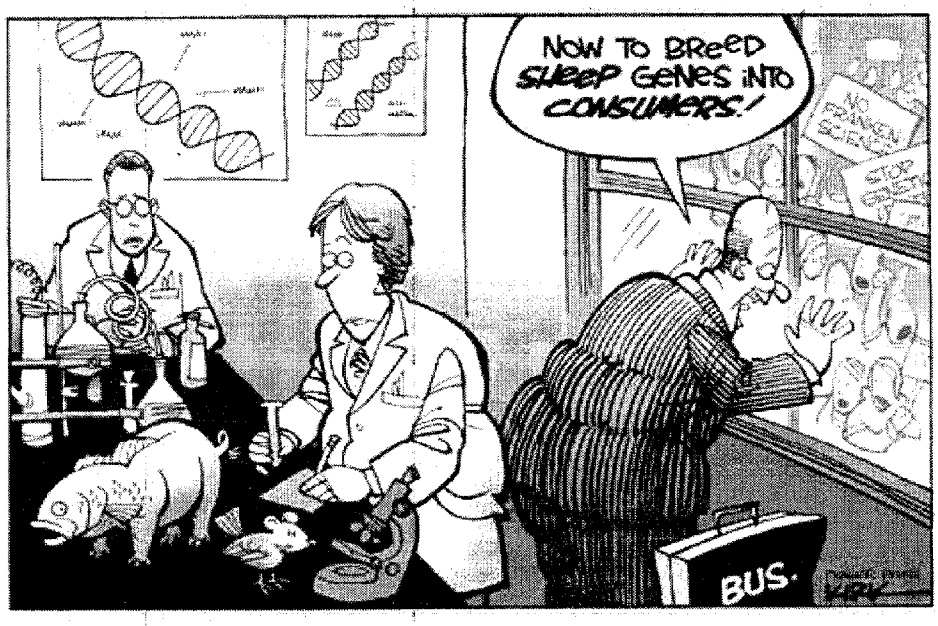
Maybe you didn't know it, but you've been eating strange things. Strange, as in never before found in nature strange. That's because fruits, grains and vegetables currently grown in the United States are being implanted with conglomerations of ingredients that never used to be in there: genes of viruses, bacteria, insects and animals. Some call this the "Yuk!" factor. But whatever you call it, it's all new to the food chain since 1990. And most Americans are unaware that it is happening here.

To quote Dr. Ricarda Steinbrecher, "There has been no warning, no consultation. We find it everywhere." In other words: your breakfast cereal, the burger you had for lunch, that chocolate (or granola) bar stashed in your desk drawer; each very likely contain ingredients that have been *genetically engineered.* Meanwhile, distinguished scientists, religious leaders, dieticians, activists, environmentalists and consumer groups have been desperately trying to give you a heads up on this radical change in food and its inherent risks.

What is Genetic Engineering?

Genetic engineering (GE), (also known as genetic modification or genetic manipulation (GM)), is the revolutionary new technology that can break down fundamental genetic barriers between humans, animals and plants in order to create new and novel organisms. Products that have been genetically engineered are called genetically modified organisms (GMO).

This is radically different from conventional techniques. Conventional techniques work only within the same or closely related species–eg corn within corn, or pigs with pigs. In contrast GE mixes genes from species that in nature will never breed with each other, like bacteria to corn or pig genes with human beings. Outside of the Island of Dr. Moreau, or the Fly, there's never been anything like it in the history of the world.



Are We Wise in Mixing Up What Nature Has Kept Apart? The Health Risk.

Distinguished scientists from around the globe view genetic tampering as a threat to the environment and human health. Genes, they say, are not passive toy modules that can be blithely slotted into very different organisms free from unintended effects.

When L-tryptophan, a nutritional supplement, was genetically engineered and first marketed, 37 people died and 1,500 were severely affected by a circulatory disorder called eosiinophilia myalgia. A gene from a Brazil nut was inserted into soybeans to increase protein levels of soy, but the new transgenic soybeans also contained the Brazil nut's allergenic properties. How bad could the results of this get? Bad. Really bad. But it could take some time. If you recall it took 20-30 years to determine that DDT and other toxic chemicals were bioaccumulating through the food chain and causing cancer. And it took about 50 years to determine that they were mimicking some human hormones and disrupting our endocrine systems. So the worst effects may be decades down the road.

There is a potential for both new animal and plant disease. For instance, recent studies suggest that the use of genetically modified recombinant bovine growth hormone raises levels of a hormone called insulin-like growth factor-1. This is significant because this hormone is an important factor in the growth of breast cancer, prostate cancer and colon cancer. And one more thing: all genetically engineered products use genes that are resistant to antibiotics. These are used for tracking purposes; however these marker genes can exacerbate the spread of antibiotic resistance. What it comes down to is this: the current trend of antibiotics to lose their effectiveness will be accelerated by genetic engineering.

Why? Why? Why? Why? Why?

The biotech companies engineer what you eat to be compatible with their chemicals, introducing new organisms more to promote pesticides and build monocultures rather than increase either quantity or quality of food.

Why is something so risky being done? Who gains from genetic engineering? Well, to put it bluntly, a handful of giant agrichemical companies are in the middle of a massive venture to control agriculture through patents, genetic engineering and mergers. Genetic engineering is, as practiced today, ultimately a bottom line deal. And one that in its simplicity is actually quite brilliant.

Take the herbicide Roundup. Roundup is Monsanto's flagship agricultural product. According to the company, Roundup "destroys every weed, everywhere." And this is no PR boast. In fact, depending on how you define weed, it's a modest statement. Roundup is a non-selective herbicide. It does not distinguish between weeds and desirable vegetation; it kills all plants. All natural plants, that is. A genetically engineered plant, Monsanto's Roundup Ready Soybean, has been developed to resist Roundup. Thus, by genetically engineering herbicide resistance into a soybean plant it alone holds patents on, Monsanto can increase sales of both the company's chemicals and seeds. It's a win-win situation–from the Monsanto point of view, of course.

For farmers who don't want to go the Roundup route it's another story. For one thing, as the company freely admits, its herbicide will kill all weeds everywhere, i.e. non-genetically Monsanto engineered soybean plants. So non-Monsanto growers face a risk of genetic drift from their Roundup using neighbors. For another thing, the intense application of Roundup on Roundup Ready Soybeans will produce superweeds (weeds more resistant to natural controls such as those used in organic farming).

How Is It Being Done with So Little Public Outcry in the US? The Selling of GE to America.

The initial strategy of agrichemical companies in the US was to quietly slip GE ingredients into the food supply. Their success can be measured by polls which show only 15% of the American public are aware this technology is now in use. However, there is a more aggressive side to a take over of the food chain: preparing the public mind with public relations. Monsanto and other corporations of GE have attempted to reinvent themselves as "Life Science" companies. They seek to persuade the citizenry that, rather than being the chemical companies which in the past have caused environmental health disasters, they are good guys, responsible men and women whose sincere goal is to fix many of the world's real and pressing problems.

The following is a short list of corporate PR, followed by a brief counter-argument.

For Questions, Comments or Criticisms contact *The Monkey Wrench* at:

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Submissions: Submitted articles, cartoons, drawings, or photos are welcome. Each issue has a theme, so we will keep your submissions on file and use them when appropriate.

Public Relations Massage #1 GE Is Needed to Feed the World's Growing Population

Actually there is evidence to suggest GE will lead to a decrease in the food supply. Marc Lappe and Britt Bailey in their book *Against the Grain* report that herbicide resistant soybeans yielded 36 to 38 bushels per acre, while hand-tilled soybeans yielded 38.2 bushels per acre. This is not good. It is a way GE could lead to an increase in hunger and starvation. And while we're on the subject, consider this: to control future sales of their products, biotech companies have pursued a genetic engineering technique dubbed the "terminator" technology. The terminator would render a crop's seed sterile, making it impossible for farmers to save seed for replanting. Half the world's farmers rely on saved seed to produce food that 1.4 billion people rely on for daily nutrition. So this terminator seed is like the Terminator 1, the bad terminator. (Not the good Arnold in Terminator 2)

A final critical point to consider here: What are the actual causes of hunger? Why does anybody ever have to go hungry? We should remember that, historically, colonialism, bringing with it an emerging capitalist economy and the wage system, destroyed the traditional economies in most countries. By substituting cash crops and monoculture for forms of sustainable agriculture, it destroyed the basic land skill of the people, reducing them to plantation workers.

With the traumatic destruction of indigenous cultures came a desperate acceptance of and desire for the industrialized goods of Western commodity society. Contrived by colonialism, this recipe for disaster accounts for any world food crisis. The problem is land ownership and food distribution. There is plenty of food and more could be grown with conventional, non–GE, techniques.

Massage #2 GMOs Are Making Foods More Nutritious, Longer Lasting and Better Tasting.

by Eric Drooker

Nearly all of the genetically modified corn, soy, and tomatoes grown in the United States have been altered either to withstand more pesticides or to produce their own pesticides. This may make crops more financially successful, more risky to health and the environment, but not more nutritious or flavorful.

Massage #3 GE Products Are Safe, Extensively Researched and Regulated, and There Is No Scientific Evidence That GMOs Harm People or the Environment.

Monsanto and other corporations repeatedly refer to their seeds and foods as having been tested for safety, but no ecological or food-safety tests have been conducted on genetically engineered crops and foods before commercialization. But the Food and Drug Administration (FDA) has approved them, right? No, not really. These are experimental foods marketed without premarket testing. Neither the FDA, the US Department of Agriculture, nor the Environmental Protection Agency has done any long term testing of genetically modified organisms (GMO) in food or the environment. In fact, a current law suit brought by Peter Drucker et al. has revealed that the FDA ignored the warnings of its own scientists that GMO foods could have new and different risks such as hidden allergens, increased plant toxin levels and the potential to hasten the spread of antibiotic resistant disease.

And why would the FDA ignore warnings from its own scientists? Lots of reasons. To name just one: the FDA is a revolving door between government and business. There is a huge conflict of interest that can be highlighted in the person of Michael Taylor, one of the main authors of FDA policy. His job at the FDA was to oversee and approve the very policies that would regulate GM products. Prior to joining the FDA, Taylor was a partner at King & Spalding, Monsanto's external counsel on regulatory issues.

These are just 3 of the PR messages being employed today. The bio-tech industry has enormous resources and connections to sell its products and point of view. (Check the web sites and sources listed below to get a wider view). However there are limits to corporate power.

Trouble in the Corporate Garden

"Controversy over GM foods spreading across the globe and taking toll on the stocks of companies with agri-biotech businesses. It's hard to see these companies as a good investment even in the long term."

–*Wall Street Journal*, January 7, 2000

Movements against GE are spreading around the globe. Here is a partial list of ongoing developments worth keeping an eye on:

1. A federal lawsuit has been filed by a coalition of scientists, environmentalists, religious leaders, organic farmers and consumer organizations demanding GE food be taken off the shelves until it has been properly tested and labeled. Confidential documents from this ongoing class action law suit have revealed scientific doubts expressed by the FDA's own scientists, including the head scientist from the FDA's Division of Food Chemistry and Toxicology, about safety issues and FDA policy.

2. The insurance industry has refused to write policies covering liability for harm caused by GMOs.

3. There is a growing body of literature that shows GMOs are creating new kinds of environmental problems for farmers.

4. There is organized, militant resistance in Europe.

5. The movement of environmentalists, consumers, farmers and radical activists to place a ban on genetically modified food is beginning to gather steam. Critical information is being exchanged on health and safety issues, antibiotic resistance and damage to the environment (as in harm to butterflies and ladybugs, and the creation of superweeds, superpests and superviruses). Protests a la Seattle are ongoing. This past July, Earth and animal liberation activists converged in the Twin Cities of Minnesota to greet the International Society for Animal Genetics University of Minnesota Conference, with workshops, discussion, trainings, direct action and videos.

One immediate result of the resistance has been that corporations doing business in Europe have promised not to put genetically modified organisms in their European foods.

What You Can Do for You

If you can afford it buy organic. The farmers market is cheaper and fresher. Working together, of course, a lot more can get done in the long term. It makes it easier to stay informed and spread the word, and organize protests and demonstrations. A food co-op needs to be set up, one with links to the state's organic farmers. ■

Who We Are...

A rag tag group of disparate individuals who spontaneously came together about a year ago to protest the bombing of Yugoslavia. Our first issue of the Monkey Wrench dealt with the myths that were used to justify that campaign. After the end of the war, we decided to widen our focus to a consideration of the root causes of US foreign policy, highlighting policy links to transnational corporations and their global agenda. To maintain a presence on the streets of Denver we hand deliver each issue to as many fellow citizens as our time and resources allow.

FYI: The Monkey Wrench is a member organization of the Denver Direct Action Network (DAN). Denver DAN was inspired by the protests against corporate globalization and the WTO that took place last November in Seattle. Denver DAN will be putting together actions and demonstrations to protest injustice and raise consciousness. It is also working to create alternative institutions.

RESOURCES

The following organizations and web sites are all over GE:

The Center for Food Safety
www.centerforfoodsafety.org

Greenpeace
www.greenpeace.org

Organic Consumers Association/Biodemocracy
www.purefood.org

Friends of the Earth
www.foe.org

North West Resistance Against Genetic Engineering
www.nwrage.org

CETOS
www2.cetos.org

Center for Media and Democracy
www.prwatch.org

Corporate Watch
www.corpwatch.org

Bioengineering Action Network
www.tao.ca/ban

These books and articles were used in writing this issue:

Shiva, Vandana. *Stolen Harvest* (South End Press, 2000)
Kneen, Brewster. *Farmageddon* (New Society Publishers, 1999)
Lappe, Marc, and Britt Bailey. *Against the Grain* (Common Courage, 1998)
Bradford, George. *How Deep Is Deep Ecology?* (Times Change, 1989)
Steinbrecher, R.A. "From Green to Gene Revolution: the Environmental Risks of Genetically Engineered Crops," *The Ecologist*, (26-273-282,1996)

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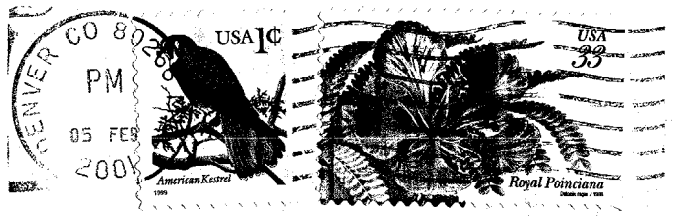

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